



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) EP 0 912 058 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
28.04.1999 Bulletin 1999/17

(51) Int. Cl.⁵: H04N 7/16, H04N 7/167

(21) Application number: 99100375.7

(22) Date of filing: 02.12.1993

(84) Designated Contracting States:
AT BE CH DE DK ES FR GB GR IE IT LI NL PT SE

(30) Priority: 09.12.1992 US 991074

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
94904392.1 / 0 673 583

(71) Applicant:
DISCOVERY COMMUNICATIONS, INC.
Bethesda, MD 20814-3522 (US)

(72) Inventors:
• Hendricks, John S.
Potomac, MD 20854 (US)

• Bonner, Alfred E.
Bethesda, MD 20817 (US)
• Wunderlich, Richard E.
Alpharetta, GA 30201 (US)
• Berkobin, Eric C.
Woodstock, GA 30188 (US)

(74) Representative:
Strahl Schöbel-Hopf & Partner
Maximilianstrasse 54
80538 München (DE)

Remarks:

This application was filed on 15 - 01 - 1999 as a
divisional application to the application mentioned
under INID code 62.

(54) Method and apparatus for providing broadcast data services

(57) A novel advanced set top terminal capable of digital decompression, menu generation, interactivity and other advanced functional capabilities for use in a television program delivery system (200) is described. The invention relates to methods and apparatus for upgrading existing set top terminals (220) to provide menu generation capability and advanced functional capabilities. The invention is particularly useful in television program delivery systems (200) with hundreds of channels of programming, providing (i) menu driven program selection through the addition of an upgrade module (300) or menu generation card and (ii) advanced functional capabilities using a set of hardware upgrades (e.g., 130) and/or an expansion card. Specifically, the invention is an upgradeable system that supports advanced set top functionality through the use of internal software, hardware upgrades, an upgrade module and/or expansion cards. The upgraded hardware generally includes a microprocessor, various input/output ports (e.g., 308), processing circuitry (e.g., 108) and memory (e.g., 116). The invention results in an upgraded set top terminal that supports: menu generation; picture-on-picture displays; program catalogue services; interactive services; telephone caller identification; digital audio reception; VCR control; HDTV reception; and backyard satellite system interoperability, among other features and capabilities.

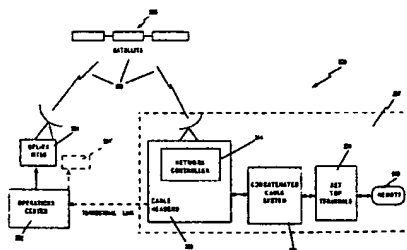


Fig. 1

EP 0 912 058 A2